

CLAIMS

What is claimed is:

- 1 1. A miter saw, comprising:
 - 2 a base;
 - 3 a pivot arm;
 - 4 a saw assembly attached to a first end of said pivot arm; and
 - 5 a support housing connected to said base, said support housing including a pivot
 - 6 assembly, wherein
 - 7 said pivot arm is attached to said pivot assembly at a second end of said pivot
 - 8 arm; and
 - 9 said pivot assembly enables eccentric motion of said saw assembly with respect to
 - 10 said support housing.
- 1 2. The miter saw of claim 1, wherein said pivot assembly comprises a pair of rolling
- 2 bearings.
- 1 3. The miter saw of claim 2, said pivot assembly further comprising:
 - 2 a fixed arcuate track having said rolling bearings therein.
- 1 4. The miter saw of claim 3, further comprising a pair of pivot pins connecting said rolling
- 2 bearings to said pivot arm, wherein said rolling bearings are slidably engaged within said arcuate
- 3 track.

5. The miter saw of claim 1, wherein said pivot assembly is selected from the group consisting of:

pulleys;

gears; and

cam assemblies.

6. The miter saw of claim 1 said saw assembly further comprising:

a blade; and

a motor operatively connected to said blade.

7. A table saw, comprising:

a base;

a saw assembly pivotably mounted to said base, said saw assembly comprising:

an arm, moveable relative to said base; and

a pivot assembly operatively connected to said arm for moving said saw assembly in an eccentric arc in a plane perpendicular to said base.

8. The table saw of claim 7, wherein said pivot assembly comprises a pair of rolling bearings.

1 9: The table saw of claim 8, said pivot assembly further comprising:

2 a fixed arcuate track having said rolling bearings therein.

1 10. The table saw of claim 9, further comprising a pair of pivot pins connecting said rolling

2 bearings to said arm, wherein said rolling bearings are slidably engaged within said arcuate track.

1 11. The table saw of claim 7, wherein said pivot assembly is selected from the group

2 consisting of:

3 pulleys;

4 gears; and

5 cam assemblies.

1 12. The table saw of claim 7, further comprising a rotatable cutting tool supported by said

2 arm.

1 13. The table saw of claim 12, said saw assembly further comprising:

2 a blade; and

3 a motor operatively connected to said blade.